

Deer Control Methods

Deer herds in central Wisconsin have been on the rise ever since their populations bounced back from near extirpation in the early 1900's. Populations have grown to such high numbers that deer are venturing out of forest habitat and into urban settings. Encounters between humans and deer have become a regular occurrence in some urban communities. The results of these encounters have not been favorable. Vehicle collisions with deer, which have been a serious cause of motorist injury, and crop and garden damage have increased dramatically. There has also been an increase in the number of cases of tick-borne diseases.



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<http://www.ngpc.state.ne.us/wildlife/durban.html>

In a growing trend throughout the country communities are turning to the government to remedy the situation. Local and state officials have been charged with the task of instituting policy to alleviate the growing numbers of urban deer. Developing an effective plan to control urban deer numbers has become a topic of hot debate.

Polls and forums are conducted to gather public opinion on which methods of control are acceptable.

Factors such as effectiveness, feasibility, and cost are compared in choosing the right plan for a particular community. Special interest groups often add fuel to the fire. Hunter groups have banded together to support the option of urban hunting. A second lethal method of control that has been adopted by many communities is the use of professional sharpshooters. Animal rights groups have risen as staunch opponents of lethal methods of control. They are opting for alternative means to reduce deer populations, such as contraception and sterilization or relocation.

As you can see urban deer control is a very sensitive topic. When urban deer control has been deemed necessary the choice of which plan to implement is not something to be rushed into. It may take months to develop a plan that is agreeable to all stakeholders. The purpose of this document is to summarize the four most common methods of urban deer management. Each method is explained objectively, we are not trying to impose our own opinions. We hope that this document will provide you with a better understanding of the methods of urban

deer management. For additional information please visit the links on the parent website.

Urban Hunting

Urban hunting is becoming a popular method of deer management in many suburban areas. Not only does it decrease the number of deer, but it also helps to improve relationships among homeowners and hunters. Bow and arrow is generally the method of choice, due to the limited range of the arrows, and the minimal risk of ricochets or stray shots.

For the most part, the equipment and people involved are all voluntary. Many of the cities that allow urban hunting require a skill test of the archer in order to obtain a special permit to hunt inside the city limits. The hunters



use their own bows, arrows, bait, and tree stands (shooting from an elevated platform allows better chances of not being noticed by the deer, and also ensures that the arrow drives into the ground). Though the homeowner or shooter can choose to keep the deer, most of the deer go to local butchers where they are cut up free of charge, with the meat donated to food pantries.

Opinions of this form of deer control are varied. Of course in areas of the country where hunters are the majority, most people welcome the idea. In urban areas though, where many don't hunt or are against it, there may be strong resistance. Many people object to hunting deer under these circumstances, but many of the hunters consider this more of a necessity than sport. It is hard to sway opinions either way; most people have a mindset that is unchangeable. However, for every homeowner that objects to the shooting, there is a homeowner that welcomes someone who will come in and take away some of the deer that are eating their gardens, bushes, and flowers.

The results of this method are generally seen immediately. The preferred time to hunt the deer is over late summer, fall, and winter. The deer are generally underfed due to being in high concentrations, and quickly decrease any available food sources. Winters are the hardest of times, when food is the scarcest, and deer will eat most plants that they would normally pass up. Also, when does are harvested at this time, the fawns are old enough to care for themselves, so there won't be any lost, orphaned fawns wandering through town.

Sharp Shooting

One option open to communities suffering from deer overpopulation is the use of sharpshooters to eliminate some

or all of the population. Deer sharpshooting has proved itself as an effective and economical way for municipalities to reduce their deer herd.

However, this has also been one of the most controversial methods. Many people have mixed feelings about outright killing of the problem deer. Along with this, many misconceptions and myths have been generated about the process. Citizens fear that shooting firearms within city limits will cause safety concerns for the residents. Also, people do not want the deer to suffer. These apprehensions are not justified.

Deer sharpshooting has been implemented in numerous states with a high rate of success and none of the aforementioned problems. Private firms specializing in wildlife management perform the shooting. The shooters themselves are trained marksman utilizing professional equipment and safe methods. The shoots are performed at a predetermined area providing a safe distance to residents. The shoot is usually done over a bait pile to attract a high number of deer and allow for numerous shots on each outing. The shooting is done from an elevated position to ensure that the shot is aimed at the ground and not towards buildings or up in the air. The shooter uses a small caliber weapon with only sufficient energy to kill the deer. Since it is a small caliber the shots are taken from an average of 25 yards, usually with a maximum of 50 yards. The guns themselves are specialized for the task. They usually are equipped with a noise suppressor so as not to startle the deer. They are also equipped with high magnification scopes that allow for precise shot placement. Shots on deer are restricted to head and neck shots. This is to ensure a quick death. Past operations have reported that deer die

within 30 seconds of the shot if not sooner.

Once the deer have been removed they are usually butchered and the meat donated to local food pantries and shelters. Another reason many municipalities are adopting these programs is the cost. Shooting deer averages a cost of between 150 to 400 dollars per deer. This is far less than trapping and removal or sterilization which both cost in excess of 700 dollars per deer.

Relocation

Another option, a “non-lethal” method, would be the use of trapping, netting, and/or immobilization of deer for the purpose of relocation. Relocation has proved to be significantly expensive, labor intensive, and has demonstrated extremely low survival rates.

Combined with the problem of



cost that ranges from 400 to 800 dollars per deer, an extensive deer relocation program would require release sites capable of handling large numbers of deer. And with Wisconsin’s currently high deer populations, these places are few and far between. The negative impacts that relocated deer could have on a local biological carrying capacity and/or a cultural carrying capacity creates further concern that many

landowners would not risk. Also, land-use conflicts and disease concerns could arise due to the relocated deer competing with native fauna and livestock.

This option requires the use of baiting, capturing, handling, and transporting deer over long distances. The capture of deer, as with any species of wild animals, presents risks to the animals. Survival rates of relocated deer are low, because deer from overpopulated ranges are typically in poor physical condition prior to capture. Physiological effects of exhaustion are another problem directly related to trap and transfer techniques. Intense sustained stress and the byproducts of the severe muscular exertion (lactic acid) combine to form a syndrome known as Capture Myopathy, which can end up killing the animal. Therefore, even if the deer survive the rigorous process of relocation, these deer are unlikely to survive the demands of adapting to a new habitat.

In conclusion, relocation options are often unrealistic due to the cost that can average from 400 to 800 dollars per deer, the scarcity of locations to accommodate a large number of relocated deer, and the low survival rate of trap and transfer.

Capture Myopathy – is a condition resulting from constant tension on muscle contractions during restraint and handling, causing reduced blood flow to the affected muscles. This can lead to anaerobic muscular activity and build up of lactic acid within muscles, which can result in lactic acidosis and cellular death.

Contraception and Sterilization

Contraception is a temporary technique that prevents conception, usually by stopping ovulation or fertilization. Therefore, contraception only applies to female deer.

Contraception can be achieved in a variety of ways: giving the deer a pill orally, implanting a contraception device beneath the surface of the deer's skin, or administering a shot (known as immunocontraception). All of these stop conception, but have proven to be challenging methods for deer control.

If a deer is given a pill orally, the same deer must ingest the pill daily. This is not practical in field studies, but is a good method in captive deer populations.

Implanting a contraception device under the deer's skin is a method that might be applicable in the field, but is very costly. It requires the presence of a veterinarian to surgically implant the device. Even then, the implant only lasts for two years. Further, the implants often have proven to be ineffective, and the deer still becomes pregnant. Because this method requires the deer to be captured and handled, it could involve capture myopathy as well.

Immunocontraception is another way to reduce the fertility of deer. This is usually a liquid drug that can be administered through a shot or dart gun, which increases the practicality of this method for field biologists. However, there are problems with this method as well. The vaccine often causes the female to go into repetitive estrous cycles, which can alter the behavior of both bucks and females. It also increases the number of late born fawns. It can also be difficult for scientists to tell which deer have been given the shot, and which deer haven't. In addition this method is also risky to humans if it is used in an urban setting. If a dart is lost in the immunocontraception process,

someone could step on the dart and be given the vaccine. This method is extremely costly, ranging up to \$1000 per deer.

The method of **sterilization** involves the *permanent* loss of fertility



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http://www.cals.wisc.edu/media/news/04_02/deer_birth_control.html

to an individual. Better known as “surgical” sterilization, this method requires a certified veterinarian to remove the ovaries. This method is valuable because it is permanent, but like in humans, removal of the ovaries alters the way the female behaves. There is a second form of sterilization that involves a ligation of the oviduct.

This method does not alter female behavior, but does increase the amount of time she cycles per season. This method is very effective, but is also very expensive and puts a lot of stress on the animal. Costs range up to about \$200/deer, but initial costs to capture deer are up to \$20,000.

Contraception is the process in which the development of a fetus is purposely terminated. This can be done by applying a drug called prostaglandin to bait piles in the winter. Since it is applied in the winter, most of the does are pregnant from the fall rut. The does come to eat at the bait piles due to the lack of natural food sources in the winter, and the drug gets ingested. However, problems arise with this method in the fact that it may be culturally unacceptable to abort fetuses, or to find deer fetuses in urban areas. This method, compared to sterilization and immunocontraception, is relatively cheap. Costs are up to \$300/deer.